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ABSTRACT

A study was conducted to assess the extent to which academic institutions are currently providing special assistance to women and minorities for graduate study. The survey was limited to formal programs designed specifically for female or minority students and is not an inventory of all opportunities. Coeducational and predominantly white colleges and universities awarding a professional degree, doctorate degree, or other degree beyond the master's were surveyed. Usable data were received from 311 institutions for a response rate of 91 percent. National estimates were obtained by weighting each response by the ratio of the number of institutions in the population to the number that responded. Nearly half of the doctoral and professional institutions offered some form of special recruitment, academic, or financial aid program to benefit female or minority graduate students. The degree of involvement varied by the control of the institution as well as by the type, with universities and public institutions being the most active. Certain fields of graduate study, notably law and medicine, reported an above average level of effort. The report includes 15 statistical tables, a sample survey instrument, and information on institutional response to the survey, stratification design for weighting, and reliability of estimates. (SW)

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Special Programs For Female And Minority Graduate Students

Frank J. Atelsek and Irene L. Gomberg

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AMERICAN COUNCIL ON EDUCATION

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AMERICAN COUNCIL ON EDUCATION

J. W. Peltason, *President*

The American Council on Education, founded in 1918, is a council of educational organizations and institutions. Its purpose is to advance education and educational methods through comprehensive voluntary and cooperative action on the part of American educational associations, organizations, and institutions.

The Higher Education Panel is a survey research program established by the Council for the purpose of securing policy-related information quickly from representative samples of colleges and universities. *Higher Education Panel Reports* are designed to expedite communication of the Panel's survey findings to policy-makers in government, in the associations, and in educational institutions across the nation.

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Highlights

- Forty-six percent of colleges that award a professional degree, doctorate degree, or some other degree beyond the master's had at least one formal program specifically designed for female or minority graduate students.
- Special recruitment or admissions efforts were made at 39 percent of the institutions, special financial aid programs were run by 35 percent, and special academic assistance was given at 24 percent.
- Public institutions were more active than private institutions in special efforts for women and minorities, and universities were more active than four-year colleges.
- Schools of law and medicine were the most active fields of graduate study among each type of special program for both women and minorities.

Background

In 1976, the graduate fellowship program was authorized by the Higher Education Act in recognition of the need to attract traditionally underrepresented groups of students into professions requiring advanced training. This section of the Act was funded for the first time in the 1978-79 academic year; and if limited resources are to be targeted effectively, the Office of Education must know just what special efforts colleges and universities are now making on behalf of these groups. Thus, the Office of Education asked the American Council on Education, through its Higher Education Panel, to assess the extent to which academic institutions are currently providing special assistance to women and minorities for graduate study.

Some preliminary observations are in order. Because the survey was limited to formal programs designed specifically for female or minority graduate students, the results do not provide a complete picture of all the resources and opportunities available. Some respondents said that, to avoid attaching any sense of stigma, they purposely refrained from developing programs especially for any one class of students. Further, the uncertainty generated by the Bakke case while it was before the Supreme Court may have made some respondents reluctant to identify their programs as being directed or limited to a special group of students. This report, then, is not an inventory of all opportunities; rather, it describes the level of institutional involvement in extraordinary programmatic efforts directed at women and minorities.

The following table provides a frame of reference for the survey. It shows the number of doctorate and professional degrees conferred during 1975-76 and the proportions of degree recipients who were women or minorities.

Doctorate and Professional Degrees Conferred
1975-76

Field	Total Degrees[a]	Percent Women[b]	Percent Minorities[a]
Total	96,296	18.3	7.9
Arts and humanities	10,154	18.3	6.0
Biological sciences	4,309	18.3	5.3
Business, accounting, management	1,407	8.9	5.0
Education	7,782	33.4	11.6
Engineering	2,789	2.3	5.7
Health professions	4,807	12.2	9.1
Law	32,559	19.2	8.5
Medicine, dentistry, veterinary	20,497	13.2	8.8
Physical sciences, mathematics	4,272	9.2	4.9
Social sciences, public affairs and services	7,720	27.3	5.8

[a]Total degrees conferred and minority data are preliminary and were obtained from the Office for Civil Rights, U.S. Department of Health, Education, and Welfare.

[b]Data about women were computed from information obtained from the Higher Education General Information Survey, National Center for Education Statistics.

Methods Summary

The Higher Education Panel is a continuing survey research program created in 1971 by the American Council on Education. Its purpose is to obtain as quickly as possible policy-related data on topics of current interest to the higher education community and to government agencies.

The Panel is a disproportionate stratified sample of 760 colleges and universities broadly representative of the more than 3,000 institutions listed in the National Center for Education Statistics' Education Directory. Each institution in the population is characterized in terms of the variables constituting the Panel's stratification design, based primarily on type (university, four-year college, two-year college), control (public, private), and size (full-time equivalent enrollment).

For any given survey, either the entire Panel or an appropriate subset is used.

For this particular survey, the population was limited to colleges and universities that award a professional degree, a doctorate degree, or some other degree beyond the master's. Further restrictions were that the institutions be coeducational and predominantly white to assure that responses about programs for women and minorities would have a single, uniform meaning. On February 10, 1978, the survey instrument (see Appendix A) was mailed to the 343 Panel members meeting these requirements. Respondents were asked to indicate, for the institution as a whole and for selected departments, whether their institutions had any formal programs created specifically for minorities or women at the graduate or professional level. Three types of programs were defined: recruitment or admissions, academic or tutorial assistance, and financial aid.

By the close of the field phase in early April, after routine mail and telephone follow-up efforts, usable data had been received from 311 institutions, for a response rate of 91 percent. Differences between respondents and nonrespondents are discussed in Appendix B. National estimates were obtained by weighting each response, within each stratification cell, by the ratio of the number of institutions in the population to the number that responded. See also Appendix C for the stratification design and Appendix D for estimates of sampling error, expressed in terms of 90 percent confidence intervals.

The survey results were tabulated by type and control of institution and by field of study. The reader is reminded that, due to weighting and rounding, subtotals may not add up exactly to their corresponding totals.

Findings

Of the nearly 600 colleges and universities that award a professional degree, a doctorate degree, or some other degree beyond the master's, the weighted results of the survey indicate that nearly half (46 percent) had at least one formal program

specifically designed to aid female or minority graduate students (Table 1). Most frequently, these programs involved recruitment or admissions, reported at about two-fifths of the institutions. Over one-third of these institutions (35 percent) had special financial aid programs for minorities and women at the graduate or professional levels, and one-fourth offered academic or tutorial assistance.

Institutions were more likely to direct special efforts to minorities than to women: Forty-three percent of institutions had at least one special program for minority graduate students, compared with 22 percent which had a special program for women.

The focus of the effort differed for the two groups of students. Of the 130 institutions with special programs for women, seven of ten provided financial aid, and nearly as many (68 percent) were active in recruitment and admissions. Only one-third maintained special academic assistance programs for women. In contrast, of the 248 institutions reporting special efforts for minorities, the largest proportion (88 percent) had recruitment and admissions programs, three-fourths had financial aid programs, and about half had academic assistance programs.

Public institutions were about twice as likely as were private institutions to have special programs, especially in behalf of minority graduate students (60 percent of public, compared with 26 percent of private, institutions). Differences by institutional type were even greater: About three-fourths of the universities, compared with only one-third of the four-year colleges,[1] had special programs. Seventy-five percent of all universities ran programs for minorities, and 39 percent ran programs for women; the comparable figures for colleges were 28 percent and 15 percent.

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[1]When institutions are described by *type*, they are generally divided into three categories: universities, two-year colleges, and all other (or *four-year)* colleges. Most of the four-year colleges are liberal arts institutions which award the baccalaureate as their highest degree. However, because of the limitations on this survey population, the four-year college class excludes institutions which award degrees no higher than the baccalaureate and is comprised primarily of independent medical colleges, other professional institutions, and other colleges which award doctorate degrees and other degrees beyond the master's.

Active Institutions

Looking just at "active" institutions--that is, institutions with at least one special program for female or minority graduate students--one finds that the great majority (93 percent) had programs for minorities, and almost half (49 percent) had programs for women (Table 2).

The types of programs reported by active institutions are summarized in the table below.

Table A

Active Institutions (N=266)

Types of Programs	Percent with Programs: For Women	For Minorities
Recruitment or admissions	33	82
Academic assistance	17	50
Financial aid	34	70

Active institutions in the private sector were more apt to provide special financial aid to women: 45 percent, compared with 29 percent of the public institutions. Active universities were more likely to have financial aid programs for minorities: 80 percent, compared with 58 percent of the four-year colleges.

At the doctoral and professional institutions in the survey population, special admissions programs for women and minorities were even more common at the departmental level than for the institution as a whole; and this was true for all three types of programs, whether directed at women or minorities, and whether the institution was public or private, a university or a four-year college (Tables 3, 4, and 5). Overall, one-third of the institutions offered special programs at the departmental level, and 30 percent had programs for the institution as a whole. Recruitment and admissions programs for women were particularly likely to be offered at the departmental level (12 percent of institutions) rather than the institutional level (6 percent).

Departmental Programs

On the questionnaire, fields of graduate and professional studies were grouped into ten major divisions or departments. Respondents were asked to indicate if these divisions/departments existed at their institution; and, if so, which had any of the listed special programs. The weighted results are presented in Tables 6 through 15.

In all instances, the professional schools such as law and medicine were the most active in special efforts for women and minorities. For instance, while 27 percent of institutions had special department-level programs for recruiting minority graduate students, as many as 52 percent of the medical schools and 47 percent of the law schools had such programs.

After the professional schools, the departments most active in recruitment and admissions efforts were departments of engineering and the health professions: eleven percent of engineering departments sought to recruit women, and 24 percent sought minorities. Of departments in the health professions, 8 percent were active in recruiting women, and 27 percent, minorities. In addition, more than one in five social science departments was involved in minority recruitment efforts.

Departments of health professions, business, and engineering departments were equally likely to have financial aid programs for women (6 percent each), and departments of engineering, health professions, and social sciences were equally likely to have such programs for minorities (18 percent each).

The proportions of professional schools and graduate departments with special programs for women and minority students are summarized below.

As was the case with institution-wide programs, differences existed in the extent of activity according to control and type of institution. Proportionately more engineering departments at public than at private institutions provided special programs for either female or minority graduate students. In contrast, law schools in the private sector were more active than those in the public sector with programs

for women, though not with programs for minorities, where public-sector law schools had a slight edge.

Table B

Percentage of Graduate and Professional Institutions with Special Departmental Programs for Women or Minorities

WOMEN	PROGRAM	MINORITIES
	Recruitment or Admissions	
18% law		52% medicine
13% medicine		47% law
11% engineering		27% health professions
8% health professions		24% engineering
5% social sciences		21% social sciences
5% business		17% physical sciences
5% physical sciences		16% business
4% education		14% biological sciences
3% arts and humanities		14% education
2% biological sciences		12% arts and humanities
	Financial Aid	
15% medicine		38% medicine
8% law		33% law
6% health professions		18% engineering
6% business		18% health professions
6% engineering		18% social sciences
4% education		15% business
3% biological sciences		12% biological sciences
3% arts and humanities		12% education
2% social sciences		11% physical sciences
1% physical sciences		8% arts and humanities
	Academic Assistance	
10% medicine		38% medicine
6% law		28% law
4% health professions		12% health professions
2% engineering		10% engineering
1% biological sciences		7% social sciences
1% physical sciences		6% biological sciences
1% business		6% physical sciences
1% education		5% business
0 arts and humanities		4% education
0 social sciences		4% arts and humanities

The differences between university and college departments were far more striking. Special programs in law and medical schools, particularly on behalf of women, were more common at four-year colleges than at universities.[2] For example, 29 percent of college law schools, compared with 13 percent of university law schools, made special

[2]When *independent* medical colleges are classified by type they fall into the four-year college category. *Dependent* medical schools, which are separate parts of larger institutions, share the same classification as their parent institutions.

recruitment efforts; and 21 percent of college medical departments, compared with 11 percent of university medical departments, offered special financial aid for women.

The emphasis on minority recruitment and admissions was especially great in university departments: The level of activity ranged from 23 percent of biological sciences and education departments to 34 percent of engineering and social sciences departments. In addition, about 27 percent of engineering and social sciences departments in universities had special financial aid programs for minorities, compared with about 6 percent at comparable departments in four-year colleges.

Summary

The survey results indicate that nearly half of the doctoral and professional institutions offered some form of special recruitment, academic, or financial aid program to benefit female or minority graduate students. The degree of involvement varied by the control of the institution as well as by the type, with universities and public institutions being the most active. Further, certain fields of graduate study, notably law and medicine, reported an above average level of effort.

Table 1

Estimates of Institutions with Special Programs for Female or Minority Graduate Students by Type and Control: All Institutions[a]
(In Percentages)

Item	Total Institutions (N=579)	CONTROL		TYPE	
		Public (N=285)	Private (N=294)	University (N=181)	Four-Year College (N=398)
Total institutions	100.0	100.0	100.0	100.0	100.0
Institutions with at least one special program ("active")	46.0	60.7	31.7	75.9	32.4
For women	22.5	26.3	18.7	38.7	15.1
For minorities	42.8	59.6	26.2	75.1	27.9
Institutions with at least one special recruitment or admissions program	39.2	52.7	26.2	69.8	25.3
For women	15.2	18.2	12.2	27.6	9.5
For minorities	37.5	51.2	24.1	68.5	23.4
Institutions with at least one special academic assistance program	24.0	30.2	18.0	43.3	15.2
For women	7.6	9.1	6.1	11.6	5.8
For minorities	22.6	30.2	15.3	42.5	13.6
Institutions with at least one special financial aid program	35.3	44.5	26.5	62.2	23.1
For women	15.7	17.2	13.9	27.1	10.6
For minorities	32.0	43.2	20.7	60.8	18.6

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's.

Note: For clarification of the term "four-year college", see footnotes pages 4 and 7.

Table 2

Estimates of Institutions with Special Programs for Female or Minority Graduate Students, by Type and Control: Active Institutions Only*
(In Percentages)

Item	Total Institutions[a] (N=266)	CONTROL		TYPE	
		Public (N=173)	Private (N=93)	University (N=137)	Four-Year College (N=129)
Total active institutions	100.0	100.0	100.0	100.0	100.0
Percentage of institutions with:					
Programs for women	48.9	43.3	59.1	51.1	46.5
Programs for minorities	93.2	98.3	82.8	99.3	86.0
Special recruitment or admissions program					
For women	33.2	30.1	39.0	36.7	29.5
For minorities	81.7	84.7	76.2	90.4	72.4
Special academic assistance programs					
For women	16.8	15.2	19.9	15.4	18.3
For minorities	49.5	49.7	49.1	56.2	42.4
Special financial aid programs					
For women	34.4	28.7	44.8	35.8	32.9
For minorities	69.5	71.3	66.1	80.4	57.9

*An "active" institution is one that has at least one special program.
Note: The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's.

Table 3

Estimates of Institutions with Special Programs for Female or Minority Graduate Students, by Level of Program: Total Institutions (N=579)[a]

Special Program	Percentage of Institutions with Special Programs on the:		
	Institutional or Departmental Level	Institutional Level	Departmental Level
Total institutions	46.0	30.4	32.5
Recruitment or admissions			
For women	15.2	6.3	11.9
For minorities	37.5	21.7	27.1
Academic assistance			
For women	7.6	2.7	5.2
For minorities	22.6	11.0	17.1
Financial aid			
For women	15.7	8.7	10.4
For minorities	32.0	20.2	23.5

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's.

Table 4

Estimates of Institutions with Special Programs for Female or Minority Graduate Students, by Level of Program and Control of Institution (In Percentages)

Special Program	Public (N=285)			Private (N=294)		
	Institutional or Departmental Level	Institutional Level	Departmental Level	Institutional or Departmental Level	Institutional Level	Departmental Level
Total institutions	60.7	42.5	41.8	31.7	18.7	23.5
Recruitment or admissions						
For women	18.2	8.8	14.0	12.2	3.9	9.9
For minorities	51.2	32.1	36.5	24.1	11.6	18.0
Academic assistance						
For women	9.1	3.1	6.3	6.1	2.4	3.7
For minorities	30.2	15.5	22.5	15.3	6.7	11.9
Financial aid						
For women	17.2	10.4	11.2	13.9	7.1	9.5
For minorities	43.2	29.4	30.2	20.7	11.2	17.0

Note: The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's.

Table 5

Estimates of Institutions with Special Programs for Female or Minority Graduate Students, by Level of Program and Type of Institution (In Percentages)

Special Program	University (N=181)			Four-Year College (N=398)		
	Institutional or Departmental Level	Institutional Level	Departmental Level	Institutional or Departmental Level	Institutional Level	Departmental Level
Total institutions	75.9	53.0	60.2	32.4	19.8	19.8
Recruitment or admissions						
For women	27.6	14.0	22.1	9.5	2.8	7.3
For minorities	68.5	41.9	52.5	23.4	12.5	15.6
Academic assistance						
For women	11.6	4.9	6.6	5.8	1.7	4.3
For minorities	42.5	20.8	32.6	13.6	6.6	10.1
Financial aid						
For women	27.1	16.4	16.6	10.6	5.3	7.3
For minorities	60.8	41.0	44.8	18.6	10.7	13.6

Note: The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's.

Table 6

Types of Special Programs for Female or Minority Graduate Students:
Departments of Arts and Humanities
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=427)	CONTROL		TYPE	
		Public (N=225)	Private (N=202)	University (N=173)	Four-Year College (N=254)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	3.0	2.5	3.4	6.6	.5
For minorities	11.8	14.6	8.6	23.9	3.5
Academic assistance					
For women	0	0	0	0	0
For minorities	3.7	5.0	2.3	7.7	1.0
Financial aid					
For women	2.7	2.1	3.4	2.6	2.8
For minorities	8.3	9.1	7.5	14.2	4.3

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in departments of arts and humanities.

Note: On this and the following tables, the total number of institutions varies according to the number of institutions having the major department specified.

Table 7

Types of Special Programs for Women or Minority Graduate Students:
Departments of Biological Sciences
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=363)	CONTROL		TYPE	
		Public (N=244)	Private (N=119)	University (N=171)	Four-Year College (N=192)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	2.5	2.8	2.0	4.5	.7
For minorities	14.3	15.5	11.7	23.3	6.1
Academic assistance					
For women	1.3	1.4	1.0	1.3	1.2
For minorities	6.2	7.3	3.9	10.3	2.5
Financial aid					
For women	2.9	1.9	4.9	1.9	3.7
For minorities	12.3	12.3	12.1	14.7	10.0

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in departments of biological sciences.

Table 8

Types of Special Programs for Female or Minority Graduate Students:
Departments of Business, Accounting, or Management
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=332)	CONTROL		TYPE	
		Public (N=206)	Private (N=126)	University (N=166)	Four-Year College (N=166)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	4.6	4.5	4.6	6.8	2.3
For minorities	15.7	16.2	14.7	24.8	6.5
Academic assistance					
For women	.7	1.2	0	.7	.8
For minorities	4.8	6.1	2.8	7.3	2.3
Financial aid					
For women	6.1	3.8	10.0	3.4	8.9
For minorities	14.6	14.4	14.8	21.5	7.7

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in departments of business, accounting, or management.

Table 9

Types of Special Programs for Women or Minority Graduate Students:
Departments of Education
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=368)	CONTROL		TYPE	
		Public (N=237)	Private (N=131)	University (N=159)	Four-Year College (N=209)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	4.5	4.2	5.2	4.9	4.3
For minorities	13.5	15.1	10.5	23.0	6.3
Academic assistance					
For women	.6	.5	.9	1.4	0
For minorities	4.0	3.9	4.3	4.8	3.4
Financial aid					
For women	3.7	3.4	4.3	4.2	3.4
For minorities	11.9	13.6	8.9	17.3	7.8

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in departments of education.

Table 10

Types of Special Programs for Female or Minority Graduate Students:
Departments of Engineering
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=212)	CONTROL		TYPE	
		Public (N=135)	Private (N=77)	University (N=129)	Four-Year College (N=83)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	11.1	12.1	9.2	13.8	6.8
For minorities	24.2	27.6	18.2	34.5	8.2
Academic assistance					
For women	2.2	1.6	3.2	2.6	1.5
For minorities	9.5	10.6	7.6	14.7	1.6
Financial aid					
For women	6.0	6.8	4.7	6.9	4.7
For minorities	18.3	20.2	15.1	26.8	5.3

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in departments of engineering.

Table 11

Types of Special Programs for Female or Minority Graduate Students:
Schools of Health Professions
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=218)	CONTROL		TYPE	
		Public (N=155)	Private (N=63)	University (N=116)	Four-Year College (N=102)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	7.5	7.3	7.8	6.6	8.4
For minorities	26.8	27.0	26.1	30.6	22.4
Academic assistance					
For women	4.2	5.9	0	1.9	6.8
For minorities	12.4	16.0	3.7	12.2	12.6
Financial aid					
For women	6.3	5.9	7.3	7.7	4.7
For minorities	17.7	20.2	11.3	20.7	14.1

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in schools of health professions.

Table 12

Types of Special Programs for Female or Minority Graduate Students:
Schools of Law
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=141)	CONTROL		TYPE	
		Public (N=80)	Private (N=61)	University (N=103)	Four-Year College (N=38)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	17.5	14.9	20.8	13.1	28.9
For minorities	47.2	48.7	45.3	50.0	39.8
Academic assistance					
For women	5.7	4.3	7.4	2.1	15.0
For minorities	28.0	32.1	22.7	24.8	36.5
Financial aid					
For women	8.1	4.1	13.2	5.4	15.0
For minorities	32.7	33.2	32.1	32.6	33.2

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in schools of law.

Table 13

Types of Special Programs for Female or Minority Graduate Students:
Schools of Medicine, Dentistry and Veterinary
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=140)	CONTROL		TYPE	
		Public (N=92)	Private (N=48)	University (N=80)	Four-Year College (N=60)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	13.4	13.9	12.6	11.1	16.5
For minorities	51.7	49.9	55.1	47.4	57.5
Academic assistance					
For women	9.8	13.8	2.4	6.9	13.8
For minorities	38.0	39.8	34.4	39.0	36.6
Financial aid					
For women	15.4	15.8	14.7	11.3	20.8
For minorities	37.6	36.2	40.1	34.8	41.2

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in schools of medicine, dentistry and veterinary.

Table 14

Types of Special Programs for Female or Minority Graduate Students:
Departments of Physical Science and Mathematics
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=348)	CONTROL		TYPE	
		Public (N=233)	Private (N=115)	University (N=170)	Four-Year College (N=178)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	4.6	4.4	5.0	7.9	1.4
For minorities	16.8	18.1	14.1	28.1	6.0
Academic assistance					
For women	1.0	.5	2.0	2.0	0
For minorities	6.1	6.7	5.0	11.1	1.4
Financial aid					
For women	1.3	2.0	0	1.9	.7
For minorities	10.7	12.4	7.3	15.5	6.1

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in departments of physical sciences and mathematics.

Table 15

Types of Special Programs for Female or Minority Graduate Students:
Departments of Social Sciences, Public Affairs and Services
(In Percentages)

Special Departmental Program	Total Institutions[a] (N=341)	CONTROL		TYPE	
		Public (N=224)	Private (N=117)	University (N=173)	Four-Year College (N=168)
Percentage of departments with a special program of:					
Recruitment or admissions					
For women	5.1	4.2	6.9	7.9	2.3
For minorities	20.9	20.5	21.8	33.7	7.8
Academic assistance					
For women	0	0	0	0	0
For minorities	7.3	7.5	6.9	12.3	2.2
Financial aid					
For women	2.0	2.0	2.0	3.2	.8
For minorities	17.6	17.3	18.1	27.8	7.1

[a]The survey population was limited to institutions that awarded a professional degree, a doctorate degree, or other degree beyond the master's in departments of social sciences, public affairs and services.

APPENDIX A: Survey Instrument

AMERICAN COUNCIL ON EDUCATION
ONE DUPONT CIRCLE
WASHINGTON, D. C. 20036

HIGHER EDUCATION PANEL
(202) 833-4757

February 10, 1978

Dear Higher Education Panel Representative:

Enclosed is the forty-first survey of the Higher Education Panel: Programs of Recruitment, Admittance, and Retention in Graduate and Professional Schools. Sponsored by the U.S. Office of Education, this survey seeks information on formal programs of colleges and universities which are designed specifically to aid minorities and women gain admittance to and succeed in graduate and professional schools.

The graduate fellowship program created by the Higher Education Act of 1972 was revised in 1976 in recognition of the need to prepare more students who were traditionally underrepresented in professions requiring advanced training. This section of the Act will be funded for the first time for the 1978-79 academic year. The Office of Education seeks a preliminary assessment of the extent of special assistance currently available to women and minorities in order to help target limited resources.

Respondents to this questionnaire would perhaps be the graduate and professional deans or the affirmative action officer. Again, we rely on your best judgment to select the most appropriate respondent.

We would appreciate receiving the completed questionnaire by Wednesday, March 1, 1978. A return envelope is enclosed for your convenience. If you have any questions or problems, please do not hesitate to telephone us collect at 202-833-4757.

This survey is authorized by the National Science Foundation Act of 1950, as amended. While you are not required to respond, your cooperation is needed to make the results comprehensive, reliable, and timely. We appreciate that some institutions may view this survey issue as a sensitive one. However, please be assured that all information you provide will be held in strict confidence, will be reported in summary fashion only, and will not be identifiable with your institution. A copy of the printed report will be sent to you as soon as it becomes available.

Thank you for your continued cooperation.

Sincerely,

Frank Atelsek

Frank Atelsek
Panel Director

Enclosures

OMB#099-R0265exp.6/78

American Council on Education
Higher Education Panel Survey No. 41

Programs of Recruitment, Admittance and Retention in Graduate and Professional Schools

1. Please indicate below whether your institution has any of the following formal programs specifically for minorities or women graduate or professional students. Check all that apply.

Division	Special Recruitment or Admissions Programs		Academic Assistance, Tutoring Programs		Financial Aid Programs		Do Not Have These Departments
	For Women	For Minorities	For Women	For Minorities	For Women	For Minorities	
Programs provided on the institutional level	( )	( )	( )	( )	( )	( )	( )
Programs provided on the graduate/professional department level							
Arts and humanities	( )	( )	( )	( )	( )	( )	( )
Biological sciences	( )	( )	( )	( )	( )	( )	( )
Business, accounting, management	( )	( )	( )	( )	( )	( )	( )
Education	( )	( )	( )	( )	( )	( )	( )
Engineering	( )	( )	( )	( )	( )	( )	( )
Health professions	( )	( )	( )	( )	( )	( )	( )
Law	( )	( )	( )	( )	( )	( )	( )
Medicine, dentistry, veterinary	( )	( )	( )	( )	( )	( )	( )
Physical sciences and mathematics	( )	( )	( )	( )	( )	( )	( )
Social sciences, public affairs and services	( )	( )	( )	( )	( )	( )	( )

(See instructions over)

2. Please provide below any comments you may have that would reflect your institution's experience with some of the programs covered in this survey. Also please share with us any appropriate literature which describes any of your institution's programs that are directed to women or minority graduate students.

Thank you for your assistance.
Please return this form by March 1, 1978 to:

Higher Education Panel
American Council on Education
One Dupont Circle, N.W.
Washington, D.C. 20036

If you have any questions, please call the Panel staff collect at 202-833-4757.

Please keep a copy of this survey for your records.
Person completing this survey:

_____ (name)

_____ (dept.)

_____ (tel.)

Instructions

Programs for women include only those which are designed specifically for women. Likewise, programs for minorities are only those designed specifically for minorities. For example, if a financial aid program existed specifically for black students within the department of education, you would check the box under the "for minorities" column on the "education" row. Even though women may be among the black students aided by this program, the "women" box would not be checked because the program target is blacks, not women.

If a program is available only in certain specific graduate departments--for example, the school of business and the school of law--boxes would be checked only for the departments of business and law.

Definitions

Minority includes Blacks, Hispanics, Asian or Pacific Islanders, American Indians, or Alaskan Natives.

Financial aid includes only those funds either provided or allocated by your institution. Exclude aid over which your institution has no discretionary power.

Departments (this is meant to be a guide, not a complete listing of fields)

Arts and humanities: Includes English, literature, speech, philosophy, foreign languages, fine arts, architecture, theology, communication, etc.

Biological sciences: Includes biology, agriculture and natural resources, botany, zoology, genetics, anatomy, physiology, microbiology, pathology, etc.

Business, accounting, management: Includes computer and information sciences as well as business, accounting, and management.

Education

Engineering

Health professions: Includes nursing, hospital administration, occupational therapy, pharmacy, medical (including dental and veterinary) specialities beyond the first professional degree.

Law

Medicine, dentistry, veterinary

Physical sciences and mathematics: Includes chemistry, geology, physics, atmospheric sciences, etc.; mathematics, statistics

Social sciences, public affairs and services: Includes economics, international relations, political science, psychology, history, public affairs and services, ethnic studies, etc.

APPENDIX B: Institutional Response to the Survey

The survey population was defined to include only institutions that were co-educational and predominantly white that awarded a professional degree, doctorate degree, or some other degree beyond the master's. Of the 579 institutions that met these criteria, 343 were Panel members. By the deadline for returning questionnaires, usable responses had been received from 311 of the 343 Panel members surveyed, for a response rate of 91 percent.

Comparison of Respondents and Nonrespondents

Characteristics	Population (N=579)	Respondents (N=311)	Nonrespondents (N=32)	Response Rate
Total	100.0	100.0	100.0	90.7
Control				
Public	49.2	68.2	59.4	91.8
Private	50.8	31.8	40.6	88.4
Type				
University	31.3	52.1	46.9	91.5
Four-year college	68.7	47.9	53.1	89.8
Highest degree awarded				
First professional	11.7	4.5	0	100.0
> Master's < Doctorate	20.0	16.4	15.6	91.1
Doctorate	68.3	79.1	84.4	90.1
Census region				
East	30.0	28.2	28.1	90.6
Midwest	25.4	26.0	25.0	90.9
South	28.3	29.5	28.1	91.0
West	16.3	16.2	18.8	89.3
Total graduate enrollment ('76)				
< 200	35.0	13.8	15.6	89.6
200-1,000	31.9	33.8	21.9	93.8
1,001-2,000	18.4	28.3	34.4	88.9
> 2,000	14.7	24.1	28.1	89.3

Respondents were similar to nonrespondents on most institutional characteristics. More respondents than nonrespondents were in public institutions, and a higher than average response rate was registered by the small group of institutions where the first professional was the highest degree awarded (100 percent).

APPENDIX C: Stratification Design for Weighting

National estimates were obtained by weighting each response, within each stratification cell, by the ratio of the number of institutions in the population to the number of institutions that responded. The resulting estimates therefore represent the 579 colleges and universities in the survey population as defined in Appendix B.

Stratification Design

Stratum	Population (N=579)	Respondents (N=311)
Public universities	111	102
Private universities	70	60
Public medical schools	30	26
Public nonblack four-year colleges (FTE > 8,750)	70	54
Private medical schools	16	12
Private nonblack four-year colleges (FTE > 8,750)	9	7
Public four-year colleges (FTE 3,700 - 8,750)	41	23
Public four-year colleges (FTE < 3,700)	33	8
Private four-year colleges (FTE 2,000 - 8,750)	41	9
Private four-year colleges (FTE 1,000 - 2,000)	23	4
Private four-year colleges (FTE < 1,000)	135	6

APPENDIX D: Reliability of Estimates

Since the statistics presented in this report are based on a sample, they will differ somewhat from the figures which would have been obtained if a complete census had been taken using the same survey instrument, instructions, and procedures. As in any survey, the results are also subject to reporting and processing errors and errors due to non-response. To the extent possible, these types of errors were kept to a minimum by methods built into the survey procedures.

The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the institutions is surveyed. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 90 out of 100 that the difference would be less than 1.65 times the standard error; about 95 out of 100 that the difference would be less than 1.95 times the standard error; and about 99 out of 100 that it would be less than 2 1/2 times as large. Thus, knowing the standard error permits us to specify a range within which we can have a stated confidence that a given percentage would lie if a complete census, rather than a sample survey, had been conducted.

Included below are tables showing the approximate standard errors of estimates of the percentages shown in this report. To derive standard errors which would be applicable to a wide variety of statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result, the tables provide an estimate of the approximate standard error rather than the precise error for any specific percentage. They show approximate standard errors by size of percentage and the size of its base and are derived by generalization methods.

For this report three sets of standard errors for use with the tables on pages 9 to 23 are shown below:

Standard Error Table:	For Use With:
D-1	All data in Tables 1-5

Standard Error Table:	For Use With:
D-2	Tables 6-15 (for data about - total institutions - private institutions - four-year colleges)
D-3	Tables 6-15 (for data about - public institutions)

It should be noted that the standard errors should not be applied to data about universities since no sampling took place among this sector of institutions; all were invited to participate in the Panel survey system.

Using the Standard Error Tables

Illustration: Consider that Table 2 of this report shows that 30.1 percent of the active public institutions have special recruitment or admissions programs for women students. Using Table D-1, linear interpolation between columns showing 25 percent and 50 percent and in rows for bases of 150 and 200 shows that the standard error of 30.1 percent of the active public institutions in the survey is about 3.6 percent. Consequently, the chances are about 68 out of 100 that the figure which would have been obtained from a complete count of active public institutions would have differed by less than 3.6 percent from the sample percentage estimate, and the chances are about 90 out of 100 that it would have differed by less than 5.9 percent; therefore the 90 percent confidence limits of the percentage estimate are 24.2 - 36.0.

Illustration: Consider that Table 10 of this report shows that 9.5 percent of the 212 departments of engineering reported having some special programs of academic assistance for minority students. Using Table D-2, linear interpolation between the rows for bases of 200 and 250 and between the columns showing 5 percent and 10 percent shows that the standard error of 10 percent in a base of 212 institutions is about 2.1. Consequently, the chances are about 68 out of 100 that the figure obtained from a complete count of departments of engineering would have differed by less than 2.1 percent from the sample percentage and about 90 out of 100 that it would have differed by less than 3.5 percent; therefore the 90 percent confidence limits of the estimate of 10 percent are 6.0 - 13.0.

Table D-1: Approximate Standard Errors of Estimated Percentage, by Size of Base for all Data in Tables 1 - 5

(about 68 chances out of 100)

Size of Base	(1) 2 or 98	(2) 5 or 95	(3) 10 or 90	(4) 25 or 75	(5) 50
50	6.0	7.2	8.3	9.6	9.7
100	3.5	4.2	4.8	5.6	5.6
150	2.5	3.0	3.5	4.1	4.1
200	2.0	2.4	2.8	3.2	3.3
250	1.7	2.0	2.3	2.7	2.7
300	1.5	1.8	2.0	2.4	2.4
350	1.3	1.6	1.8	2.1	2.1
400	1.2	1.4	1.6	1.9	1.9
450	1.1	1.3	1.5	1.7	1.7
500	1.0	1.2	1.4	1.6	1.6
550	0.9	1.1	1.3	1.5	1.5
600	0.8	1.0	1.2	1.4	1.4

Table D-2: Approximate Standard Errors of Estimated Percentage, by Size of Base for Tables 6 - 15: For data for Total Institutions, Private Institutions and Four-Year Colleges in Tables 6 - 15

(about 68 chances out of 100)

Size of Base	(1) 2 or 98	(2) 5 or 95	(3) 10 or 90	(4) 25 or 75	(5) 50
50	8.5	8.6	8.7	8.8	8.8
100	4.3	4.4	4.4	4.4	4.4
150	2.9	2.9	3.0	3.0	3.0
200	2.2	2.2	2.3	2.3	2.3
250	1.8	1.8	1.8	1.8	1.8
300	1.5	1.5	1.5	1.5	1.5
350	1.3	1.3	1.3	1.3	1.3
400	1.1	1.1	1.1	1.1	1.1
450	1.0	1.0	1.0	1.0	1.0
500	0.9	0.9	0.9	0.9	0.9
550	0.8	0.8	0.8	0.8	0.8
600	0.8	0.8	0.8	0.8	0.8

Table D-3: Approximate Standard Errors of Estimated Percentage, by Size of Base for Tables 6 - 15: For data for Public Institutions in Tables 6 - 15

(about 68 chances out of 100)

Size of Base	(1) 2 or 98	(2) 5 or 95	(3) 10 or 90	(4) 25 or 75	(5) 50
50	2.3	2.8	3.2	3.7	3.8
100	1.3	1.6	1.9	2.2	2.2
150	1.0	1.2	1.4	1.6	1.6
200	0.8	0.9	1.1	1.3	1.3
250	0.7	0.8	0.9	1.1	1.1
300	0.6	0.7	0.8	0.9	0.9

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Single copies of the above reports may be obtained from the Higher Education Panel, American Council on Education, One Dupont Circle, Washington, D. C. 20036.